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Committee Egg Pricing

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COMMITTEE EGG PRICING

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INTRODUCTION

Congress earmarked special funds beginning in fiscal year 1966 for a study of the present egg pricing system, methods for its improvement, and possible alternative pricing systems. Committee pricing was considered as one of the more likely alternatives to the present system in a report recently published by the Economic Research Service, U. S. Dept. of Agriculture (13).

A detailed study of committee pricing was made as one phase of the broad program of research on egg pricing carried out by USDA agencies and 13 State Agricultural Experiment Stations. A committee pricing experiment using 1967-68 data was conducted by the Ohio, Pennsylvania, Georgia, North Carolina, New Hampshire, Missouri, and California stations and the Economic Research Service and the Consumer and Marketing Service, USDA.

This report considers the possible advantages of committee pricing, its limitations, the informational needs to make it work most effectively, the results of the committee pricing experiment conducted from April 1967 through April 1968, and ways in which a committee pricing system could be implemented.

Group Action in Price-Making

Under a committee pricing system, a group of individuals examines available market information and suggests prices which they feel are appropriate for a specified time period.

In the theory of perfect competition, price is an automatic output of a perfectly-operating mechanism composed of supply and demand schedules. But the real world is different. Individuals engaged in trading, or more formal institutions designed to facilitate organized trading and/or evaluate market information, put forth considerable effort to determine prices. Market information is neither perfect nor equally distributed. This tends to encourage some smaller groups to specialize in "making" basic price levels. Thus, there is ample precedent for group determination of prices and committee pricing is a formalized way of group determination of prices.

Two decades ago, Shepherd contended that the price-making process in agriculture tends to evolve from bargaining on each transaction to centralized markets, then decentralized markets, and finally to a price committee system. As the evolutionary process progresses, less time and energy are spent in price determination and prices become more accurate (14).

It is unlikely that each industry either passes or needs to pass through each of these stages. But certainly changes in industry structure and practices are likely to eventually require parallel changes in pricing methods, including possible consideration of the committee system when industry characteristics reach an advanced stage of development.

Almost five decades ago, Macklin suggested that "organized speculation" was preferable to "hit-or-miss guessing or chance juggling of market forces." He also recognized that when sufficiently complete information on both supply and demand conditions is available to an integrated marketing concern, relatively stable prices can be calculated which guarantee buyers against declining or violently fluctuating prices and promote sales and competition (7). With a broadening of the latter concept, it can be postulated that similar benefits may be obtainable on an industry-wide basis.

Nourse classified pricing systems as "authoritarian," "administered," and "automatic" (10). It is easy to visualize group or committee participation in pricing decisions under the first two classifications. For example, public agencies or committees may determine or approve utility rates or milk prices. In modern corporate industry, group participation within the firm or industry can exist in establishing price lists or fair price levels. However, even in the "automatic" or "free market" classification, group involvement can still play an important role in price making. This can encompass various forms beyond the individual firm, ranging from formalized exchange trading to pricing committees.

Committee Pricing Systems in Operation

Committee pricing has been used in various agricultural commodity fields, apparently with acceptable results. A committee pricing system has been used for cotton for many years.

Fifteen central markets are "designated spot cotton markets." A quotations committee in each of these markets issues cotton price quotations as required by U. S. cotton futures legislation. The markets are designated by the Secretary of Agriculture

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and the committees are supervised by the USDA. They are periodically re-evaluated for their suitability as major sources of price information (3).

Legal status for spot cotton price quotations is presently provided for by the cotton futures provisions of the Internal Revenue Code of 1954. These provisions superseded similar provisions of the Internal Revenue Code of 1939 which were derived from the U. S. Cotton Futures Act of August 11, 1916, and related laws. Section 4862 of the Internal Revenue Code of 1954 is devoted to defining and determining bona fide spot markets.

Committees in designated spot cotton markets are appointed by the president of the exchange. The three to five (or more) members are selected from producer organizations, merchants, shippers, brokers, and mill representatives for 1-year terms, with some re-appointments. USDA supervises the committee. A market supervisor assists and advises the committee.

Each week USDA market supervisors obtain data on cotton prices and market conditions for presentation to scheduled meetings of quotation committees. Each committee evaluates the information and arrives at quotations or representative prices for the various qualities being sold on spot markets, based on official U. S. cotton standards. The base price is determined for one grade. Differences in price for variations in quality from this grade are quoted. The Consumer and Marketing Service, USDA, publishes committee decisions in the report, *Spot Cotton Quotations.*

Trade members who are not committee members may attend meetings and present information and views but the price is determined by vote of the committee. The committee normally meets once a week. If there is a change in the factors which determine price, the committee can meet more often. The price is quoted on a daily basis but is only changed when the committee meets and believes a price change is warranted.

The price determined does not always exactly fit the beliefs of the USDA supervisor. The committee can then be asked to justify their evaluations. If agreement is not reached, USDA can then drop the quotation and "undesignate" the market. The national quoted price is then determined by combining prices for the remaining spot markets.

Committee pricing arrangements have been used in other countries. A Cornell study discussed the operations of the British Egg Marketing Board, the Danish Bacon-Factories Export Association, and the Danish Farmers Cooperative Egg Export Association. All of these arrangements result in the establishment of weekly prices or quotations for the following week. They operate under governmental authorization and involve a major share of the commercial trade. Each has a highly developed information system on which decisions can be based (1).

Studies Considering Committee Pricing of Eggs

Committee pricing has been suggested by various researchers as one approach which might alleviate some of the shortcomings of present egg pricing methods.

In discussing possible alternatives to the prevailing method of egg pricing in Boston, Manchester suggested in 1954 that one alternative was:

". . . a legalized price committee, with representatives of buyers and sellers and of the public (either through memberships on the committee or by supervision of a governmental representative), is the most drastic in terms of the change required in habits of thinking about the pricing system. Direct costs would be higher than under the present system, although it would not need to be as expensive as, e.g., the administration of the milk marketing orders. It would have the advantage of a direct approach to the problem of price-making without the distraction of reporting. It would be consistent with the system of price leadership which prevails and would preserve the economics in buying and selling which are inherent in the long-term agreements to establish prices on the basis of a quotation. The question of manipulation of the market could be nearly eliminated, and confidence in the basic quotation might be restored. With price recommendations made once or twice a week, a large part of the day-to-day fluctations which now take place could be eliminated and a larger measure of stability introduced." (8)

Development of industry or government pricing committees was also suggested by Pritchard in 1959 as one possible solution for problems attendant to prevailing methods of pricing eggs. Such committees (or one national committee) would have as a primary function the establishment of base prices for eggs. These would be used by the trade in much the same manner as present market quotations are used in setting actual transaction prices at all market levels. However, intensive study was suggested prior to venturing conclusions on merits or effects on egg marketing, since committee pricing would involve far-reaching changes in pricing methods (9).

In a study reported in 1958 by Baker, about one-half of 40 major country-point egg buyers in Pennsylvania endorsed, in principle, the idea of an impartial, publicly administered board for base egg price determination. Some of those favoring the idea had reservations about the availability of impartial, capable personnel to operate such a system. Those opposed to the idea believed the present pricing system

was satisfactory and that there might be more chance for manipulation under a committee system (2).

In 1961, Rogers suggested that committee pricing deserved serious and intensive study as one of the possible alternatives to present methods. The setting of quotations by impartial committees would retain many aspects of the base price quotation system. Pricing committees, however, in substituting evaluation of the overall supply and demand situation for sample trading, might offer great advantages in terms of stability and permanency (12).

In 1966, Faber presented similar suggestions in discussing committee pricing as an alternative system. In indicating that there could be as many committees as needed in various parts of the country, reference was made to the committee pricing system for cotton operated under special legislation (5).

Discussing the problems of possible Federal administration of egg prices, Morrison in 1962 pointed out some of the difficulties such an agency might face. In suggesting that prices could be arrived at by formula (such as under milk marketing orders) or by a committee of specialists, some of the questions he raised were: At what levels in marketing channels would prices be established? How would geographical differences be determined? Would adequate market information be obtained? What grades and sizes would be priced? He suggested that such prices would be of more importance if accompanied by activities to maintain the announced prices (9).

Wing's study on egg pricing, published in 1966, included suggestions on committee organization which were primarily industry-oriented and involved two alternatives. The first alternative was for a single committee serving the national market and composed of two persons representing the supply of eggs, two representing the demand for eggs, and one from the U. S. Dept. of Agriculture. It was suggested that five to ten major suppliers and three to five of the largest supermarket chains, as well as large-scale egg processors and wholesalers where important, should be contacted in each of three regions to obtain information. The areas suggested were the Midwest, South, and Northeast. The second approach was for three separate regional committees, each consisting of one member from the U. S. Dept. of Agriculture, five to ten large-scale egg suppliers, and three to five of the largest egg retailers, with egg processors and wholesalers represented where they are important. A central committee of five, as indicated above, would be required to coordinate the activities of the three regional committees (17).

The recent report by USDA's Economic Research Service indicated a formal committee pricing approach could be used to suggest base values for a number of key geographical locations and for major grades and sizes of eggs. If a regional committee structure were employed, there should be at least four committees in order to include one for the Western region. However, a single committee system was indicated as preferable to a federation of regional committees, although regional representation should be built into the committee structure (13).

All of the above studies which considered committee pricing as an alternative to the present system were predicated on the continuance of a base price quotation system. Some difference of opinion existed on the precise trading level for which such base price quotations would be determined. With only one exception, these studies suggested that prices determined in a committee system would furnish guideline values for determining prices on individual transactions and would not be prices which would be maintained by public purchase and disposal activities.

Some contend that an informal committee pricing system on eggs is now in effect, with the cash market exchanges and reporting firms constituting the parts of the private committee system. Public participation is indirect, involving the collection and dissemination of market information and the surveillance of exchange operations by USDA's Commodity Exchange Authority.

Thus, committee pricing of eggs could be carried out by the trade, by informal groups with both industry and public representatives, under Federal-State administrative decisions, or under specific legislation by Congress. But the latter alternative may, in many respects, offer the best possibility of designing a program which would uniquely fit the characteristics and needs of the egg industry. Such an approach could best guard against conflicts of interests, exempt industry participants from legal liability under statutes, and generally protect the public interest.

Advantages, Disadvantages, and Problems with Committee Pricing of Eggs

Among arguments for the committee pricing approach are: (1) less frequent and less extreme price fluctuations than those of some present base price quotations; (2) minimization of undue influence on price levels of a few terminal markets; (3) fuller reflection of general supply and demand conditions in basic price quotations; (4) better short-run reflection —with multiple bases—of conditions in areas far removed from terminal markets; (5) eventually, more widespread confidence in the pricing mechanism; (6) less opportunity for attempted price manipulation on cash market exchanges to be reflected in quotations; and (7) encouragment of desirable changes in market information programs.

Many of the arguments against committee pricing relate to uncertainties about how it would be implemented. Because committee pricing would represent a substantial change from present practices, it would initially not be as well understood as a system which has been in effect for many decades. Resistance might exist in various places in the industry. This could result both because of the adjustments required for individual firms and the uncertainty about the role of established institutions.

While some people suggest that there is a need for more public representation and participation in the price-making process, others are uneasy about the form this might take and the extent of "government control" involved. The implementation of formal committee pricing might take considerable time. Technical problems of a new system would need to be solved and specific legislation by Congress would be required.

It is likely that the kind of information needed by a pricing committee and the use made of various pieces of information would differ somewhat from the kind of information available and its use in determining present base price quotations. However, information needs are comparable in various pricing systems. And a substantial improvement in the scope and rapid release of information is fundamental to better egg price determination, regardless of the technique employed.

The committee pricing system considered in this report would still be predicated on base price quotations. These involve problems which are discussed in the next section of this report.

PROBLEMS ASSOCIATED WITH BASES

The base quotation method of pricing eggs in terminal markets has developed over the past 50 years or more. It has come under heavy criticism as the production and marketing structure for eggs has undergone drastic changes and the pricing mechanism has remained essentially unaltered. Committee pricing, or some other pricing mechanism, while changing the method of egg price discovery, could still result in determination of a base quotation. Various segments of the egg industry could perform actual ownership transfers much as is done under the present system of pricing. Since determination of bases is only one alternative of determining prices, it is appropriate to look at some of the problems associated with base quotations.

Segments of the egg industry are interested not only in the mechanism of pricing but also in the level of prices. It should be recognized that the general level of egg prices from one year to another will depend largely on factors other than the pricing mechanism; namely, the supply of eggs relative to demand. Stabilization of prices from year to year requires the stabilization of volume of production. The demand for eggs is highly inelastic with respect to price and Henson found that demand is becoming more inelastic over time (6). Because of this inelasticity of demand, rather small fluctuations in supply result in wide fluctuations in price. These can be expected to continue, if not intensify, in the future.

A matter of great concern to the industry is the level of base prices which will clear the market. The concern here is that if the market clears, could it have done so at some higher base level. This holds whether prices are advancing or decreasing. There is always the seller's question of whether the adjustment upward was too little or adjustment downward was too great. Profit margins in the industry are thin at times. Even a 1-cent difference could greatly change short-run net revenues of many producers.

Base quotations in the past have undergone considerable day-to-day fluctuations (4). To many in the industry, there appears to be little justification for sharp, short-run fluctuations in the base. Quantities supplied in a short-run period have a price elasticity of almost zero—that is, regardless of price changes, there will be little change in total supplies moving to markets in the immediate short-run. Consumption also is quite stable, even on an annual basis, and for the short-run is extremely inelastic. Consequently, short-run fluctuations in base prices perform very little allocative function and a base fairly stable over periods of a week or longer might perform the same function satisfactorily.

Some present bases do not indicate the level of farm prices or retail egg prices. Over the past 10 years, farm egg prices have fallen in relation to the base price and so have prices to retailers. At the present time, the industry transacts business on the basis of so much over or under the base quotation. In any given area, there has been a tendency for the price to decline relative to the base. Producers receive a price generally under the base quotation. The differential in any particular situation depends on factors such as distance from terminal markets, volume, and marketing services performed (15).

In a similar manner, retailers pay a differential over the base quotation for cartoned eggs. This differential has been decreasing and is now less than half of what it was 15 years ago. Factors affecting this differential include services performed, degree of competition for a given market, and available supplies. Price relationships for cartoned eggs to retailers and the Urner-Barry quotations are shown in Table 1.

Base prices do not show how price relationships change between geographical areas, either seasonally

TABLE 1.—Selected New York Base Quotations for Wholesale and Cartoned Eggs in Cents per Dozen.*

Year	Wholesale†		Candled and Cartoned‡	
	May	September	May	September
1958	37	53	46 to 52	62 to 68
1959	28 to 28¼	43 to 44	36 to 42½	52 to 58
1960	34½ to 35	49 to 49½	42½ to 51	57 to 62½
1961	32½	45	40 to 48½	52½ to 61
1962	31½	44½	39 to 44½	52 to 59½
1963	30½	43½	37½ to 43½	51 to 57
1964	31 to 31½	39 to 39½	38½ to 44½	46½ to 52½
1965	29 to 30	40	37 to 45	47 to 53
1966	35	48	42 to 49	53½ to 61
1967	29½	33	35½ to 38	39½ to 42½
1968	27	47	34 to 36½	53 to 55
1969	36½		41½ to 43	

*Source: Producers Price Current, Urner-Barry Co., N.Y. Prices are for first business day of the month.

†Quotations are for extra fancy heavyweight white eggs. After reporting change occurred, quotations are for fancy large.

‡Quotations are for full range, minimum 10-case delivery of candled and cartoned large eggs delivered in the New York-New Jersey metropolitan area.

or over longer periods. This brings up the question of representativeness of a base quotation. The allegation has frequently been made that a base quotation at a terminal market may give a fairly accurate representation of the interplay of supply and demand forces at the terminal market but that these relationships are considerably different in other areas of the country. However, prices at a terminal market must reflect forces of supply and demand in major areas supplying that market if it is to receive the volume of eggs necessary to meet requirements.

It is possible, however, that base prices may not reflect prices actually being used in making transactions. If, in addition to customary differentials, premiums or discounts are applied to base prices, this may indicate that base prices do not reflect actual trading values. Thus the base could be misleading and add to lack of information.

A possibility exists for the mis-use of base prices by some segments of the industry. This manipulation could be actual, psychological, or just misinformation. When manipulation can occur, a lack of confidence in base quotations can develop. Then the efficiency of the system can be impaired.

Bases should be easy for the trade to use in consummating transactions. There should not be an extensive proliferation of bases because determining interrelationships would become a major problem. Perhaps only a few base prices would be sufficient, with differentials from the base being used to account for other variations meaningful to different segments of the industry.

Base prices would perform their functions better if improved information series were available. Data regarding movement of eggs out of retail stores, stocks of eggs in storage and on the floors of egg dealers, quantities of egg solids in the hands of both final users and suppliers, quantities of committed and uncommitted eggs, retailer inventories, weekly sales, anticipated specials, number of layers being force molted, weekly slaughter of light fowl, number of pullets being housed weekly, and expected production at country points would be extremely useful in determination of base prices, especially for quotations issued on a weekly or less frequent basis. Such information would result in better understanding of the supply-demand situation and a consequent determination of base prices which would more accurately reflect values needed to clear the market on a continuing basis.

This information not only needs to be available but should be timely enough to be of use in base price determination. Some information is presently available on an historical level and is of limited use in price determination. Development of needed information could entail some added costs unless resources used to gather information of limited value are shifted to different usees. Furthermore, the cooperation of industry members would be required to make information available and reliable.

EXPERIMENTAL STUDY

A committee egg pricing system was simulated between April 1967 and April 1968. The experiment was designed to isolate some of the problems of this method of pricing. Comparisons were made between egg values estimated by an experimental committee, with market reports of prices determined by the present pricing system.

The experimental committee included representatives of the Economic Research Service, State Experiment Stations, and Market News Service. Participants were located in Washington, D. C.; Columbus, Ohio; University Park, Pa.; Athens, Ga; Raleigh, N. C.; Durham, N. H.; Columbia, Mo.; Berkeley, Calif.; and Philadelphia, Pa.

Egg pricing points were selected to represent all geographic regions of the country. Levels of marketing and grades of eggs considered were chosen to represent typical price quotations and grades at each location. The location of pricing points, market levels used, grades, and price quotations included in the experimental operation are listed in Table 2.

Method of Operation

The experimental committee was divided into several sub-committees reporting to the general chairman in Washington, D. C. Each sub-group was made responsible for egg value projections for a given marketing area. Committee members conferred with the Market News Service representative at least once each week. He apprised them of all available current egg supply and movement data. Some par-

TABLE 2.—Location of Markets, Trading Levels, Grades, and Prices Used in Experimental Price Study.

Pricing Point	Market Level	Egg Grade	Price
New York	Wholesale	Extra Fancy, large	range, mostly
		Extra Fancy, medium	range
		Extra Fancy, small	range
		Fancy, large	range, mostly
		No. 1, medium	range
	To Retailers	Grade A, extra large	range
		Grade A, large	range, mostly
		Grade A, medium	range
Iowa	To Producers		
	Incentive Program	Grade A, large	range
		Grade A, medium	range
	Other Eggs	Grade A, large	mostly range
		Grade A, medium	mostly range
	To Country-Point Buyers	Breaking Stock	bottom of mostly
Chicago	To Retailers	Grade A, extra large	range
		Grade A, large	range, mostly
		Grade A, medium	range
Georgia	To Producers	Grade A, extra large	range
		Grade A, large	range
		Grade A, medium	range
	To Retailers	Grade A, extra large	bottom of mostly
		Grade A, large	bottom of mostly
		Grade A, medium	bottom of mostly
California	To Producers	Grade A, large	range
		Grade A, medium	range
	To Retailers	Grade A, extra large	range
		Grade A, large	range
		Grade A, medium	range
New England	To Producers	Grade A, extra large	bottom of mostly
		Grade A, large	bottom of mostly
		Grade A, medium	bottom of mostly
	To Retailers	Grade A, extra large	bottom of mostly
		Grade A, large	bottom of mostly
		Grade A, medium	bottom of mostly

ticipants also maintained contact with industry members for other indications of the egg supply and demand situation.

The sub-committees conferred each Friday, usually by telephone. Estimates of egg values during the succeeding week for each marketing point were agreed upon and these values were reported to the chairman. Reports from all sub-committees were summarized. Copies of the summary of values for the succeeding week and market news price averages for the previous week's daily reports were sent to each participant.

Egg Values

Egg values estimated by the committee were to be prices at which supply and demand quantities were equal. No adequate standard was available for these values.

Market prices were not necessarily unique values at which supply and demand quantities were equal. Market prices were, however, attributes of the market. Use of market prices as standards will be discussed in more detail in later sections.

Determination of Values

In the early months of this experiment, most participants attempted to predict average market prices for the succeeding week. As the project progressed, experimental objectives were modified so that prediction of Market News Report prices was replaced by estimation of egg values for the succeeding week.

Changes in past, current, and anticipated market attributes were evaluated. The term "egg values" refers to committee projections and the term "price" refers to actual sales prices either reported by Market News or other reflection of prices at which exchanges occurred. Descriptions of some market attributes were obtained from published egg market reports. These included current week market prices, storage data, and Dept. of Defense and USDA purchases. Comparisons with the previous year's data were also available.

Descriptions of other market attributes were obtained from the Market News Service representative. These included: commercial egg movement, fowl slaughter, movements into retail channels, and floor stock reports. These data are published in weekly summaries but are not available in this form by Friday of the current week. Other data were obtained from both the market reporter and industry sources. Examples are labor disputes, weather conditions in producing areas, and other factors which may influence normal egg movement. Anticipated egg specialing by major retailers, the market reporters' "feel" of the market, seasonal trends in egg prices, and any unusual circumstances such as approaching holiday periods were considered.

During the period in which experimental committees were projecting values, several participants were also formulating quantitative models for egg price forecasting. These models, to be reported in other publications, were not sufficiently developed for general committee use. Subjective evaluations were made about market clearance at reported prices vs. projected values. Values for the succeeding week were present prices adjusted for seasonal trends and the expected supply and demand situation during that week.

Comparison of Market News Reports and Experimental Committee Values

A summary of comparisons of egg values projected by the experimental committee with prices reported by the Market News Service is listed in Table 3. In some instances, extremes of the range are compared for both the full price range and "mostly" prices. Some projected series were not included in Market News reports and could not be compared. Three types of comparisons were made for the summary: (1) average annual value projections were compared with average reported prices; (2) frequency distributions of overestimates and underestimates; and (3) the magnitude of differences between projections and reported prices.

Average values projected by the experimental committee differed from prices reported by Market News Service by less than .15 cents per dozen for all series combined. The frequency of projected values greater than or less than Market News prices varied among pricing areas and among marketing levels. For the New York pricing area, projected values and market prices differed 0.5 cent per dozen in approximately one-third of the weeks. Generally, projections less than market prices were more frequent than projections greater than market prices. More projections were below market prices for prices to retailers than for wholesale prices. New York projections differed from New York Market News prices by 0.5 cent per dozen in more weeks than was generally the case for differences between projections and Market News prices for other pricing points.

Projections for all values differed from market prices by more than 2 cents in less than 10 weeks at all pricing points except for New England for extra large eggs. The difference exceeded 1 cent for more than 20 weeks for several of the New York, Los Angeles, and New England series. None of the other series had as many as 20 weeks in which projections and Market News prices differed by more than 2 cents a dozen.

TABLE 3.—Comparison of Some Characteristics of Committee Price Predictions and Prices Reported by Market News Service, by Areas.*

Pricing Point and Level of Trading	Size, Quality, and Measure of Price		Average Price for 56 Weeks (cents)		Frequency of Differences (direction)**			Frequency of Differences (cents per dozen)††						
			C†	MN‡	Over	Under	Same	1	2	3	4	5	6	7
New York City, wholesale, loose, per dozen	EFHWL, overall range	Top	32.4	32.5	17	21	18	20	8	5	2	2	1	0
		Bottom	30.5	30.9	20	25	11	26	10	6	1	0	1	1
	EFHWL, mostly range	Average	31.3	31.5	17	25	14	24	10	4	1	2	1	0
	EFHW-M, overall range	Top	26.1	26.3	21	18	17	24	10	2	0	0	3	0
		Bottom	24.8	25.1	18	18	20	19	12	2	0	0	2	1
	EFHWS, overall range	Top	20.8	21.1	17	20	19	16	11	7	0	3	0	0
		Bottom	19.7	20.0	18	21	17	16	15	5	0	2	1	0
	FHW-L, overall range	Top	31.3	31.6	17	23	16	22	11	4	0	2	1	0
		Bottom	29.6	30.2	16	26	14	23	11	5	1	0	2	0
	#1M, overall range	Top	25.2	25.5	19	18	19	19	12	3	1	2	0	0
		Bottom	24.0	24.3	16	19	21	18	11	2	2	1	1	0
New York City, prices to retailers, cartoned, per dozen	A X L, overall range	Top	43.6	43.9	15	26	15	22	10	5	1	2	1	0
		Bottom	38.7	39.0	13	24	19	22	7	4	2	2	0	0
	AL, overall range	Top	41.6	42.0	14	26	16	20	11	5	2	1	1	0
		Bottom	36.7	37.0	12	24	20	19	8	5	2	1	1	0
	AL, mostly range	Average	38.4	38.5	14	23	19	21	7	5	2	1	1	0
	AM, overall range	Top	34.0	34.4	17	23	16	21	15	1	0	2	1	0
		Bottom	30.3	30.5	20	17	19	19	14	1	0	1	2	0
Iowa, prices to producers (a) Incentive program, loose, per doz.	AL, overall range	Top	29.8	30.1	12	27	17	27	8	1	1	2	0	0
		Bottom	25.4	25.7	13	22	21	24	7	2	0	2	0	0
	AM, overall range	Top	22.7	22.7	18	14	24	18	7	4	2	0	0	1
		Bottom	17.5	17.3	18	15	23	17	10	5	0	1	0	0
(b) other eggs, loose, per doz.	AL, mostly range	Average	20.8	20.4	21	12	23	20	10	1	2	0	0	0
	AM, mostly range	Average	15.2	14.9	24	8	24	26	5	1	0	0	0	0
Iowa-Nebraska breaking stock, loose, per doz.‡‡	Unclass., mostly range	Bottom	21.6	21.5	9	9	38	14	4	0	0	0	0	0
Atlanta, prices to retailers, cartoned, per dozen	A X L, mostly range	Bottom	39.4	39.8	9	23	24	26	4	1	1	0	0	0
	AL, mostly range	Bottom	37.4	37.8	11	22	23	27	4	1	1	0	0	0
	AM, mostly range	Bottom	31.8	31.9	17	14	25	21	5	5	0	0	0	0

TABLE 3 (continued).—Comparison of Some Characteristics of Committee Price Predictions and Prices Reported by Market News Service, by Areas.*

Pricing Point and Level of Trading	Size, Quality, and Measure of Price		Average Price for 56 Weeks (cents)		Frequency of Differences (direction)**			Frequency of Differences (cents per dozen)††						
			C†	MN‡	Over	Under	Same	1	2	3	4	5	6	7
Georgia, prices to producers, loose, per dozen	A X L, mostly range	Bottom	29.0	NA										
	AL, mostly range	Bottom	27.0	27.2	12	23	21	21	10	2	2	0	0	0
	AM, mostly range	Bottom	21.4	21.5	16	19	21	24	8	3	0	0	0	0
Los Angeles, prices to retailers, cartoned, per dozen	A X L, overall range	Top	41.9	41.9	16	17	23	10	18	5	0	0	0	0
		Bottom	40.6	40.7	16	17	23	10	17	6	0	0	0	0
	AL, overall range	Top	36.8	36.9	15	17	24	10	18	4	0	0	0	0
		Bottom	35.8	35.9	15	17	24	10	17	5	0	0	0	0
	AM, overall range	Top	32.5	32.8	12	19	25	10	15	6	0	0	0	0
		Bottom	31.5	31.8	12	19	25	11	14	6	0	0	0	0
Fresno, Calif., prices to producers, loose, per dozen	AL, overall range	Top	27.8	27.8	16	15	25	19	8	1	2	1	0	0
		Bottom	23.3	23.3	17	16	23	17	12	2	1	1	0	0
	AM, overall range	Top	22.1	22.1	22	19	15	24	11	3	1	2	0	0
		Bottom	18.2	18.1	24	19	13	25	11	2	3	2	0	0
New England, farm prices, loose, per dozen	A X L, mostly range	Bottom	33.6	33.5	20	21	15	17	10	6	2	4	2	0
	AL, mostly range	Bottom	31.4	31.3	21	19	16	19	13	5	2	1	0	0
	AM, mostly range	Bottom	25.0	24.6	25	13	18	22	7	6	1	2	0	0
Boston, prices to retailers, cartoned, per dozen	A X L, mostly range	Bottom	43.3	43.2	20	22	14	17	6	10	3	2	0	4
	AL, mostly range	Bottom	41.1	41.0	23	18	15	16	16	5	1	1	2	0
	AM, mostly range	Bottom	34.5	34.1	21	12	23	17	7	4	2	1	1	1

*Based on a 56-week period beginning the week of April 10-14, 1967, and ending the week of April 29-May 3, 1968.

†Annual average of weekly prices predicted by committee.

‡Annual average of daily prices reported by Market News Service.

**Number of weeks for which predicted prices were over, under, or same as the weekly average of Market News prices for same week.

††Number of weeks predicted prices differed from weekly averages of Market News prices by a given margin in cents per dozen. Same equals within 0.5 cents per dozen; 1 cent = range of 0.6-1.5 cents, 2 cents = range of 1.6-2.5 cents, etc.

‡‡Converted from dollars per 30-dozen case to cents per dozen.

Accuracy of Estimates

Substantial egg price changes between weeks may be an indication that previous market prices were incorrect. If prices are too high, sellers' stocks of eggs accumulate and prices fall. If prices are too low, sellers' stocks of eggs are depleted and prices are bid up.

In most instances, changes in projected values lagged behind changes in market prices. This tendency would be expected. The committee's estimates of values were not reflected in the market. Projected values thus had to adjust to market prices rather than the reverse. The lag in adjustment in direction of price changes was usually 1 week.

Market prices for large eggs were substantially higher than projected values in early April 1967, mid-September, mid-December, and mid-January. Each of these periods was followed by a period of substantially decreasing market prices. If the projected values had been in effect, price decreases might not have been as great.

Most projected values were less than market prices at the end of May, early August, and late October. These periods were followed by periods of substantial price increases. These increases might have been higher if projected values had been in effect.

Projected values for late January through most of February were greater than market prices. This period was followed by a period of rapidly increasing market prices. This suggests that market prices were too low.

Comparisons of market prices for extra large, medium, small, and breaking eggs with projections lead to about the same conclusions as for large egg prices. However, the differences between projections and market prices were smaller for medium, small, and breaking eggs than for large or extra large eggs.

Research Difficulties

A conclusive evaluation of accuracy of the experimental committee's projections compared with market prices cannot be made. It appears, however, that there were pricing periods in which the experimental committee's estimates of egg values were more accurate than market prices. The reverse was also true.

The experiment was also undertaken to determine some of the problems a pricing committee would encounter. A defined method of operation would need to be formulated. The experimental committee also encountered information limitations. These limitations were of four forms: (1) a lack of effective quantitative relationships between egg values and the variables influencing these values, (2) missing data for certain time periods, (3) incomplete market coverage, and (4) untimely data.

The experimental committee estimated egg values, in part, on the basis of subjective evaluations. Primary data were collected directly from industry sources and the Market News reporters. Secondary data were assembled from various Market News reports. These data on industry attributes were fed to the committee and the committee projected egg values.

Projected values for breaking eggs appeared to be more accurate than values for any other class of eggs. Projections were very close approximations of market prices. They were usually slightly lower than market prices in periods followed by decreasing price periods. They were greater than market prices in some periods, followed by increasing price periods. There was less tendency for the direction of projections to lag behind the direction of market prices.

A larger proportion of the breaking egg market was included in industry direct contacts by the experimental committee than for the shell egg market. The breaking egg market is more clustered. A single contact represents a larger proportion of the industry than contact with a single shell egg outlet. As a result, breaking egg market data were relatively more available and complete.

Projected values were closer approximations of market prices for small and medium eggs than for large and extra large eggs. This may also be a result of information being available for a larger percentage of the total market for medium and small eggs than for larger eggs. Price variation was not as great for medium and small eggs as for larger sizes. The percentage of the smaller sized eggs which passes through the wholesale market is greater than for larger sizes. Export activities also play a relatively important role in establishing small egg prices. Export information was often available from the Market News reporter.

Some shell egg market data were not available when projections were made. The experimental committee relied more heavily on the Market News Service for shell egg market data than for breaking egg data.

Market News reports of weekly activities were not available until the following Monday at the earliest. Usually these reports reached committee members the following Tuesday or Wednesday. Projections for a given week were made the previous Friday. Market News weekly reports were too late to be of greatest value as indicators of current supply and demand. Prices, supply, and demand trends developing within the week could not be evaluated

because data generally were not immediately available.

Weekly reports include supply and use indicators such as storage stocks at selected locations, commercial egg movements, egg movements into retail channels, and fowl slaughter. Part of the gap in information availability was offset by including the Market News representative in the experimental committee. If a committee pricing scheme is adopted, methods of data reporting may need to be revised to place information currently available in weekly reports at the committee's disposal more quickly.

Incomplete data was another problem encountered by the experimental committee. Market News reports are based on samples. The percentage of total supply included in these reports varies among weeks. The variation is probably not great. Egg demand, however, is such that even small variations in supply are accompanied by large price changes. If a committee were using the reports to price eggs, more complete reports would be required.

The full extent of new data a committee may need is unknown. Some of the industry models to be reported in other studies may help to identify variables influencing egg values. The experimental committee projected weekly values. Most past models were for monthly or annual average prices. Temporary conditions can cause egg price changes between weeks and not influence average prices over longer periods.

The experimental study indicated that a committee system of base egg price projection would be feasible. Experience could be developed within a relatively short period which would likely result in: (1) less price fluctuation, (2) quotations which change as industry conditions change, and (3) quotations closer to actual transaction prices than present bases.

RECOMMENDATIONS

The role of an egg pricing committee would be to reflect as accurately as possible the market value for eggs of the grades quoted at the base points. Trading would then take place at or around the base quotations or on differentials from the quotations. If the committee were able to project supply-demand conditions accurately enough to clear the market, traders would need to change their differential from the bases only because of special occasions which were unique to their operation or trading area.

This means that the committee would need to constantly be aware of changing demand and supply conditions, including such factors as seasonal variation, long-run trends, and changing deficit and surplus conditions in particular areas.

Prices determined by the committee must be completely free from actual manipulation and as free as possible from any psychological or misinformation manipulation.

Frequency of Price Quotations

There is currently no apparent strong consensus for any particular frequency of base price quotation. Some organizations, to avoid problems of frequent price fluctuation, have priced eggs on either a 5-day moving average, a particular day of the week, or some other less than daily basis. It appears that weekly quotations would be frequent enough to permit trading without any great amount of variation from the base. Differentials from the base could probably remain fairly constant and the market could be cleared with once-a-week changes in base prices.

It is obvious that those members of the industry who have operated for many years on the cat-and-mouse game involved in the frequent changes and who enjoy this kind of poker playing would object to a maximum of 51 and likely even fewer price changes in a year. However, price levels required to clear the market may not be greatly different with once-a-week price changes than with more frequent price changes.

Major retailers apparently are not generally interested in changing prices more frequently than once a week. In addition, unstable prices may have effects beyond those of the inventory position of the industry members when the price change occurs. One of these is the need for frequent change in price markings by retailers. From a long-run point of view, the most logical approach would appear to be for the industry to mechanically price mark most of the cartoned eggs at the time they go through the cartoning line. Frequent price changes (except for specials) may affect consumer buying practices and contribute to less orderly market operations.

Arguments could be put forth for less frequent price changes than once a week. In fact, if cost-plus pricing developed with negotiations once a year or even less frequently, prices would become highly stable. At the same time, there would be little need for base price quotations, either from a committee or any other source.

It is recommended that if a committee base pricing system is developed, the initial frequency of quotation should be once each week—perhaps with announcement on Wednesday of the price levels estimated for the week beginning on the following Monday. This would permit time for price marking in the packing plant under most circumstances. It would also allow some time for negotiation of differentials from the base if local conditions appeared to make this desirable.

It is highly probable that less frequent changes in the base price could be accompanied by market clearing without wide price fluctuations. However, with seasonal demand changes, fluctuations in the amount of specialing, and the biological problems which may affect the quantity of eggs produced, it appears that the opportunity for changing base quotations at least once a week should be a provision of any price committee operation.

Number of Basing Points

There are arguments for either a single basing point or for multiple basing points.

Those arguments which suggest a single basing point are: (1) eggs can move from almost any point to any other point within the conterminous United States in 96 hours or less; (2) there is almost no likelihood that supply and demand conditions would ever necessitate a flow of eggs between the two most distant points; and (3) the market for eggs tends to be nationwide and prices smooth out over intermediate time periods. If a single basing point were used, it could be New York, which is now widely used because of its deficit position. A market like Chicago might also be used because of its nearness to the geographic center of the U. S. population.

Other arguments favor the use of more than one basing point. Concentrations of population on the West Coast, particularly in the Los Angeles and San Francisco areas, suggest a West Coast basing point might also be desirable. If major surplus-producing areas are involved, points in the Midwest and South, as well as in California, could be used. New England is both the major producer and consumer of brown eggs and hence might provide another basing point. Multiple basing points offer an added convenience to users and provide an opportunity to reflect major regional variations in supply and demand conditions. Obviously, however, basing points cannot be numerous enough to reflect all local conditions. Moreover, too many basing points would make the job of a pricing committee unmanageable.

Data Required in Determining Bases

One logical function of an egg pricing committee operation would be to develop an accurate enough base to avoid any trend toward decreasing prices relative to a base—such as has existed for many years in relation to the New York base.

To have a more accurate base, it would be necessary for the committee to have more information than is now available in determining base prices. As indicated earlier, continuous improvement would need to be made in the knowledge of the quantitative relationships between egg values and the variables influencing these values. Predictive models would need to be continuously brought up to date and refined as better information became available.

It would also be desirable to have more complete coverage of such variables as movement of eggs into retail channels. Improved data would be needed on stocks of eggs. These include both those in cold storage and on the floors of egg handlers. One completely new statistic would need to be developed—the quantity of egg solids in the hands of final users and supplier-manufacturers. Weekly production data would be needed from large owner-integrated operations. In addition to receipts from farmers of purchased eggs and those produced on a contract basis, good indicators would be needed of movement of new layers into flocks and those being removed from flocks. A national statistic on the amount of forced molting would also be essential.

Such factors as the expected number of deliveries required on futures markets as a result of attempted squeezes or similar types of operation would be basically ignored by a pricing committee except for their effects upon specific grades of eggs. Obviously an operation of this kind does not change the basic supply-demand relationships for eggs. It may make alternative outlets less desirable and change the price for specific grades of eggs. Therefore, it would be considered if such egg prices were included in the quotations.

Number of Base-Grade Prices

The most important consideration in determining the number of grades to use would be their importance in total trading. The point at which most negotiation occurs in egg pricing is between the retailer and his supplier. Therefore, the basic grade logically would seem to be large grade A eggs in cartons delivered to warehouses or large stores. The experimental pricing committee used six pricing points, four levels of trading, and nine quality-size grades. For quotations on prices to retailers, it might be desirable to quote on the basis of grade A quality or better for perhaps five size grades: jumbo, extra large, large, medium, and small. Jumbos and smalls might possibly be eliminated from this listing. An addition to the list might be grade B large but this grade likely could be logically handled by negotiation on a differential under grade A large basis.

Two breaking stock quotations might be listed. They would be farm-run, 46 lb. net weight per case, with the buyer and seller negotiating differences from this base for heavier and lighter eggs until such time as these eggs are bought on a strictly yield basis. The second grade would be for uncartonables of satisfactory quality for use in breaking.

Quotations might be developed for eggs in frozen and solids forms. The specifications for these

quotations, if needed, should be developed with the trade. They would likely include frozen whole eggs in carlots plus smaller lots of whole eggs, yolks, and yolks with common additives for two color levels and for specific solids contents. A frozen white classification might also be needed.

It is questionable whether frozen blends or egg solids quotations would be needed. Large sales for these products are on a negotiated basis and smaller sales could be at a differential from frozen prices.

Composition of Committee

A committee pricing system would not be a price-setting operation. It would suggest base quotations. Actual prices would be determined by traders in the market. Information resulting from trading on markets like the mercantile exchanges would only be one kind of information available to the committee, which would have the responsibility of suggesting base prices. Therefore, such exchanges would have no direct connection with the committee.

Industry members, however, would have much to gain or lose as a result of changing egg prices which resulted from changes in the base quotation. Industry members would have much stake in the proper composition of the pricing committee. Their major stake would be in the committee arriving at the right decision for the industry as a whole and not for any one segment of the industry or any particular traders simply because of a current position in the market.

Different traders have different stakes in what happens to prices at any particular time. Therefore, a most important consideration in determining the composition of an egg pricing committee would be whether members of that committee gained directly as a result of their decisions. It is suggested that the final decision in any committee operation be in the hands of individuals who stand to neither gain nor lose as a result of a base quotation change. Each member should be required to stand the toughest kind of conflict-of-interest test.

These requirements would seem to suggest long-time public appointments to the committee with tenure comparable to that of major governmental boards. Committee members might not need to spend full time on the egg committee operation. It is possible that provisions could be developed which would permit the actual committee operation to be held one day each week.

On the assumption that the legal requirements could be met for this kind of operation, it is suggested that a five-member committee be developed, none of whom is a paid consultant to any individual industry organization.

It is suggested that the five-member committee be composed of one USDA employee and four university staff members as the actual final decision-makers on base quotations and that they meet by conference calls.

The USDA representative would be a person with no responsibility for any action program and would be a tenured civil service employee. The university staff members would be tenured employees. They preferably would be located in four major areas of the U. S.—East, South, Midwest, and West. They would all be well-informed, poultry industry economists, each of whom would devote a minimum of 20 percent of his time to the egg committee operation. Their employers would be compensated for the time which these persons spent on committee operations but the complete salaries of these individuals would come from their employers.

The USDA member of the committee could be the executive director of the committee and be responsible for assembling the necessary information for the committee.

Provisions would need to be made for alternates for the regular committee members. Preferably one USDA man and four university staff members should be commissioned to serve as alternates. University alternates should be on the same geographical basis as regular members.

In addition, it is suggested that there should be an egg industry advisory committee composed of approximately 15 industry members located widely geographically and representing all stages of production and marketing. A minimum of two-thirds of the members of this group would be contacted in a conference call each time the committee met to make a decision. They would be given the information as prepared by the executive director and asked to comment on the information and to give any indications at their disposal of weaknesses or strengths in the markets.

After listening to the reports of the industry advisory committee, the pricing committee would separately, by conference call, make their final decisions. The suggested committee membership is only one of many possibilities. The major keys in determining the composition of the committee should be competence, industry knowledge, no conflict of interest, stability of the group, and high level of integrity.

Inauguration of Committee System

Special legislation would be required to set up a public egg pricing committee. This legislation should spell out the powers of the committee, its composition, means of selecting the members, conditions for which a member might be removed before the end of the appointment period, means of removal, and methods of compensating members or their employers; set up an

office for the executive director and information gathering staff; and provide means for making the committee system operative and, if necessary, for discontinuance of the system.

Funds would need to be provided for gathering the necessary data, operation of the executive director's office, expenses associated with meetings of the committee and advisors, and for dissemination of results.

Specific Steps to Attain Committee Acceptance

Legislation would be required to put a public egg pricing committee into operation. Industry leadership would have to strongly support such legislation. Industry representatives would thus have a strong voice in the development of a committee system.

If industry members have a strong voice in the development of a committee system, they should also support its operation. They should work continuously to improve the competence of the committee operation by making sure that the committee is provided with the necessary means for obtaining the information required to be effective. They should have a strong voice in determining the criteria for composition and selection of a committee.

Industry ideas may differ from those indicated above and, as a result, just as effective a committee may be developed along other lines. In any event, the recommendations of any industry group sponsoring legislation for committee inauguration must be acceptable to the industry in general.

Hearings would be held before any legislation is enacted. Hearings should help develop detailed specifications for committee operation. At these hearings, all segments of industry could be heard. If a committee operation is inaugurated, changes also can be made over time in its methods of operation as a result of improvement in the competence and understanding of both committee and industry members.

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